IN THE CLAIMS:

1.-17. (Cancelled)

18. (Currently Amended) A method of starting-up a router connected to a plurality of sub-networks ~~in a home bus system comprising a router, a sub-network, an another router including a parent router for assigning a sub-network identification code that identifies each of the sub-networks~~, the method comprising:

carrying out a request for ~~the~~ a sub-network identification code that identifies each of the sub-networks connected to the router;

~~receiving a response based on the request;~~

determining from ~~the~~ a response based on the request that another router is absent in each of the sub-networks connected to the router; and

stopping a routing function based on said determining.

19. (Previously Added) The method according to Claim 18, wherein said carrying out the request comprises using a provisional sub-network identification code.

20. (Previously Added) The method according to Claim 19, wherein the provisional network identification code comprises a value of 0x00.

21. (Currently Amended) A router connected to a plurality of the sub-networks ~~in a home bus system having a router, a sub-network, and another router including a parent router for assigning a sub-network identification code that identifies each of the sub-networks~~, the router comprising:

~~a~~ transmitting means for carrying out a request for ~~the~~ a sub-network identification code that identifies each of the sub-networks connected to the router;

~~a means for receiving a response based on the request;~~

~~a~~ means for determining from ~~the received~~ a response that an another router is absent in each of the sub-networks connected to the router; and

~~a~~ means for stopping a routing function based on information provided by said means for determining.

22. (Currently Amended) The router according to Claim 21, further comprising:

_____a ̶ ̶means for storing a provisional sub-network identification code; and

the transmitting means ̶i̶s̶ for carrying out the request by using the provisional sub-network identification code.

23. (Currently Amended) A method for starting a router connected to a plurality of sub-networks ̶i̶n̶ ̶a̶ ̶h̶o̶m̶e̶ ̶b̶u̶s̶ ̶s̶y̶s̶t̶e̶m̶ ̶c̶o̶m̶p̶r̶i̶s̶i̶n̶g̶ ̶a̶ ̶r̶o̶u̶t̶e̶r̶,̶ ̶a̶ ̶s̶u̶b̶-̶n̶e̶t̶w̶o̶r̶k̶ ̶a̶n̶d̶ ̶a̶n̶o̶t̶h̶e̶r̶ ̶r̶o̶u̶t̶e̶r̶ ̶i̶n̶c̶l̶u̶d̶i̶n̶g̶ ̶a̶ ̶p̶a̶r̶e̶n̶t̶ ̶r̶o̶u̶t̶e̶r̶ ̶f̶o̶r̶ ̶a̶s̶s̶i̶g̶n̶i̶n̶g̶ ̶a̶ ̶s̶u̶b̶-̶n̶e̶t̶w̶o̶r̶k̶ ̶i̶d̶e̶n̶t̶i̶f̶i̶c̶a̶t̶i̶o̶n̶ ̶c̶o̶d̶e̶ ̶t̶h̶a̶t̶ ̶i̶d̶e̶n̶t̶i̶f̶i̶e̶s̶ ̶e̶a̶c̶h̶ ̶o̶f̶ ̶t̶h̶e̶ ̶s̶u̶b̶-̶n̶e̶t̶w̶o̶r̶k̶s̶, the method comprising:

carrying out a request for ̶t̶h̶e̶ a sub-network identification code that identifies each of the sub-networks connected to the router;

̶r̶e̶c̶e̶i̶v̶i̶n̶g̶ ̶a̶ ̶r̶e̶s̶p̶o̶n̶s̶e̶ ̶p̶r̶o̶v̶i̶d̶i̶n̶g̶ ̶t̶h̶e̶ ̶s̶u̶b̶-̶n̶e̶t̶w̶o̶r̶k̶ ̶i̶d̶e̶n̶t̶i̶f̶i̶c̶a̶t̶i̶o̶n̶ ̶c̶o̶d̶e̶ ̶b̶a̶s̶e̶d̶ ̶o̶n̶ ̶t̶h̶e̶ ̶r̶e̶q̶u̶e̶s̶t̶;̶ determining that a response, based on the request, is absent from each of the sub-networks connected to the router; and

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stopping a routing function ~~when the response is absent~~ ~~from each of the sub-networks connected to the router~~ based on said determining.

24. (Previously Added) The method according to Claim 23, wherein said carrying out the request comprises using a provisional sub-network identification code.

25. (Previously Added) The method according to Claim 24, wherein the provisional network identification code comprises a value of 0x00.

26. (Currently Amended) A router connected to a plurality of sub-networks ~~in a home bus system comprising a router, a sub-network, and another router including a parent router for assigning a sub-network identification code that identifies each of the sub-networks~~, the router comprising:

~~a~~ transmitting means for carrying out a request for ~~the~~ a sub-network identification code that identifies each of the sub-networks connected to the router; and

~~a means for receiving a response based on the request; and~~

~~a~~ means for stopping a routing function when the response ~~of the sub-network identification code~~ is absent ~~from~~ in each of the sub-networks connected to the router.

27.   (Currently Amended) The ~~router~~ method according to Claim 26, ~~wherein:~~further comprising:

~~the router further comprises a~~ means for storing a provisional sub-network identification code; and

the transmitting means for carrying out the request by using the provisional sub-network identification code.

28.   (Currently Amended) A method for starting a router connected to a plurality of sub-networks, comprising:

carrying out a request for a sub-network identification code that identifies each of the sub-networks connected to the router;

~~receiving a response based on the request;~~

determining from the response that another router is present in each of the sub-networks connected to the router; and

stopping a routing function based on the response.

29. (Previously Added) The method according to Claim 28, wherein said carrying out the request comprises using a provisional sub-network identification code.

30. (Previously Added) The method according to Claim 29, wherein the provisional network identification code comprises a value of 0x00.

31. (Currently Amended) A router connected to a plurality of sub-networks, comprising:

a—transmitting means for carrying out a request for a sub-network identification code that identifies each of the sub-networks connected to the router;

~~a means for receiving a response based on the request;~~

a—means for determining from the received response that another router is present in each of the sub-networks connected to the router; and

a means for stopping a routing function based on information provided by said means for determining.

32. (Currently Amended) The router according to Claim 31, further comprises comprising:

a means for storing a provisional sub-network identification code; and

the transmitting means for carrying out the request by using the provisional sub-network identification code.

33. (Currently Amended) A method for routing a router connected to a plurality of sub-networks, comprising:

carrying out a request for a sub-network identification code that identifies each of the sub-networks connected to the router by using a provisional sub-network identification code;

receiving a response based on the request, the response comprising the sub-network identification code from each of the sub-networks connected to the router; and

stopping a routing function based on said response.

34. (Currently Amended) A router connected to a plurality of sub-networks, comprising:

~~a~~ means for storing a provisional sub-network identification code;

~~a~~ means for requesting a sub-network identification code that identifies each of the sub-networks connected to the router by using the provisional sub-network identification code;

~~a~~ means for receiving the sub-network identification code as a response based on a request of the requesting means;

~~a~~ communication processing means for transmitting and receiving data among the sub-networks; and

~~a~~ means for stopping the communication processing means when the requesting means receives the sub-network identification code from each of the sub-networks connected to the router.